Session: Fatigue 'I'll sleep when I'm dead'
No. of attendees: 34
Presenter: Mike Harnett
Facilitator: -
Monitor: Ella Pritchard

Time: 1.30pm - 3.00pm
Part of the problem is.. that we don't know how big the problem is as employees are afraid or admit or ask.

A 2015 film industry survey had 2200 responses;
$70 \%$ reported erratic sleep patterns

Fatigue is inadequate restorative sleep, which leads to decreased capacity to perform mental or physical work.

Fatigue accumulates.
ONLY SLEEP CURES FATIGUE
The more fatigued you are, the more drowsy episodes you'll experience, which will have an immediate effect on performance and cognitive ability. You won't be on top of your game and you'll suffer stress.

In our circadian rhythm (built in body clock which tells us when to eat, when to be active, when to rest, and controls our body temperature) is a body temperature curve, there's a dip in our cognitive ability between $1 \mathrm{pm}-4 \mathrm{pm}$. We get our best sleep/recovery during the darkest hours.

Danger times between 1 pm - 4pm, 3am - 5am We can't adapt to become nocturnal species.
Melatonin is the natural sleep hormone which is synthesized and secreted only at night. It's a powerful antioxidant which cleans up free radicals which destroy DNA (leading to cancers.)

In the last 100 years we've reduced our sleep from an average of 9 hours per night to 7 hrs . $30 \%$ of use get less than 6hrs sleep per night.

Serotonin helps you logically deal with stress and not emotionally, it's also a happy hormone.
Memory consolidation only happens during REM, which is our dream phase of sleep when the body is paralyzed and the brain is repairing itself.

## Stages of Sleep

Stage 1 - non-REM (light sleep) - brain waves begin to slow, muscles relax, pulse and breathing slows down
Stage 2 - non-REM - brain waves slow down, further 15-30mins
Stages 3+4-Delta sleep (deep sleep)- growth hormone is produced, rebuild immune system. 60-90 mins non-REM
In this pattern: 1-2-3-4-3-2, then you reach REM sleep for 30 mins, then another cycle.

Anytime you disrupt someone in their sleep cycle, they go back to stage 1 and may not get the REM sleep needed.

## How much sleep is enough sleep?

Generally: 8-9 hours, minimum 7 hours.
Missing out on just one hour of sleep increases your sleepiness and performance impairment the next day.

If you're a short sleeper (poor quantity):

- Accelerates ageing
- Affects hormonal balance
- $50 \%$ increase of diabetes
- connections to suffering dementia and Alzheimer's.


## Sleep is more important than exercise.

There is an organizational responsibility for employees suffering fatigue. They should do their due diligence. Liability as an employer doesn't end when the employee walks out of the door at the end of their shift. You have a responsibility for them.

## Indicators of good sleep

- you fall asleep within 30 minutes
- waking up no more than once per night, and for no longer than 20 minutes
- Sleep efficiency is at least $85 \%$ (amount of sleep vs. total time in bed)

Sleep disorders affect 40\% of Canadians
\$20m was spent on sleep aids in Canada in 2015, but you're only treating the symptoms, not solving the problem.

## Books vs ipads

10 minutes longer to fall asleep produced 5\% less melatonin
less REM sleep
Felt sleepier the next day

## What works:

Stop using devices 3 hours before bed (Apple has a night shift setting, or wear sunglasses with orange filters.)
Journaling - transference to release your brain so you can fall asleep.

## What doesn't work:

Alcohol - it disturbs your sleep architecture, suppresses REM sleep and prevents you from reaching delta sleep.

## Q\&A

Qu.: What time in the morning is the best time for coffee?
Mike: once you've reached your minimum temperature, anytime after that really.
Qu: What's the best advice for industries who want to invest in fatigue issues?
Mike: fatigue needs to be included in investigations. Senior management need to make people aware of their liability. Education of management.

Qu: If my staff have a second job or say they're fine there's not much I can do.
Mike: You can mitigate the risk - if a supervisor can see their staff are tired, give them a different task, don't let them drive home, assign them different responsibilities.

## There isn't a breathalyzer for fatigue but it's coming.

## Rules of napping

Avoid random naps, make them routine
Short naps $=40$ minutes max
Long naps at least 2 hours
Get rid of alarm clocks that omit light
Meditation and sleep apps

## Alertness strategies

Peppermint tea for focus and clarity, gum, lemon tea.
Working nights - eat protein, fish, eggs, meat, beans, yoghurt

## To do-

Buy a good bed with pocket springs
Avoid down comforters
Don't argue in the bedroom
Sleep as soon as you get home from a night shift
Remove or cover all light sources
No tv in bedroom
Develop a pre-sleep routine
No pets in bedroom

Wear socks to bead
No intense exercise 3 hrs before bed or before night shift.
If you have a good routine, even if you only get 6 hours sleep per night during the week, your body will keep you down in delta sleep longer at the weekend.

